Annual Report on Public Safety
Wireless Voice and Data Communications
in the Commonwealth of Kentucky

Submitted by Deputy Commissioner Jim Barnhart
Commonwealth Office of Technology
Finance and Administration Cabinet
September 15, 2008

A Report to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability.

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Executive Summary

As with all of Kentucky State Government, 2008 has been a year of change for the Kentucky Wireless Interoperability Executive Committee (KWIEC). With the gubernatorial and legislative transitions and the large number of personnel departing due to retirements and agency realignments, nearly half of the members of the KWIEC left sometime during the year. Most agencies sent temporary/proxy members as needed to cover these transitions but the shortage of long term members needed to chair subcommittees and spearhead efforts in support of the KWIEC goals was somewhat hindered. This issue has since been resolved with the gubernatorial announcement in July 2008 of the remaining appointments for the KWIEC and efforts in support of the KWIEC goals are expected to be back on track by September 2008.

In spite of the aforementioned issue, all mandates and three of the four goals adopted by the KWIEC were met for this year. The single near term goal of 'Complete the upgrade of the KEWS Eastern Segment by December 2008' will not be met on time due to equipment programming issues reported by the manufacturer.[*] The new CEO of Harris Stratex personally met with Deputy Commissioner Jim Barnhart to assure the Commonwealth that these issues would be resolved by the end of the year. Based on a revised timeline, the resultant delay will slip the anticipated completion of this goal to the third quarter of 2009.

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[*] An expanded explanation is presented in the body of this document.

Purpose

As required by KRS 11.5163 – Annual Report by Chief Information Officer, "The executive director shall report by September 15 annually to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability."

This report will serve to update the legislative members on the progress of the Kentucky Wireless Interoperability Executive Committee (KWIEC) since the last reporting cycle in the following areas.

- ✎ Success in meeting the mandates as defined in KRS 11.5163
- ✎ Progress toward the goals adopted by the KWIEC
- ✎ Updates on the operational programs tracked by and reported to the KWIEC
- ✎ Recommended Pilots and Projects

Authority

The Kentucky Wireless Interoperability Executive Committee operates under directives set forth in Kentucky Revised Statutes - KRS 11.5161, KRS 11.5162, and KRS 11.5163.

Introduction

In the four years since then Governor Fletcher signed into law the Kentucky Wireless Interoperability Executive Committee (KWIEC) nearly 200 state and local wireless and interoperability projects have been reviewed and approved, the Statewide Interoperability Plan has been created and published, and four major[†] interoperability projects have been completed. In addition to these accomplishments, the quarterly KWIEC meetings have served as a forum for discussing new ideas, updating key decision makers, airing recommendations, discussing problems openly, and developing potential solutions.

Based on these past successes, it is evident that the KWIEC has and will continue to serve as the instrument for steering the Commonwealth toward a seamless wireless communications interoperability solution for all first responders across the state.

[†] Mutual Aid & Interoperability, BIM Cross Connect, Mobile Data, KYWINS Messenger.

Background

KRS 11.5161, KRS 11.5162, and KRS 11.5163 are reviewed and republished annually.

This information is repeated from the 2007 report for informational purposes.

HB 309

The Kentucky General Assembly passed HB309 creating the Kentucky Wireless Interoperability Executive Committee (KWIEC), which is administered through the Commonwealth Office of Technology.

The committee benefits the Commonwealth by:

- ✳ Creating a nationally recognized name, the State Interoperability Executive Committee (SIEC), and structure as recommended by the Federal Communications Commission;

- ✳ Encouraging more involvement from interested agencies with the addition of local representatives from municipal and county government, police, fire, sheriff, EMS, and a 911 dispatch representative;

- ✳ Instituting an annual reporting mechanism whereby the chief information officer updates the Joint Interim Committee on Seniors, Veterans, Military Affairs, and Public Protection, and the Interim Committee on State Government;

- ✳ Addressing communications interoperability, a critically important homeland security issue;

- ✳ Advising and making recommendations to the chief information officer of the Commonwealth regarding strategic wireless initiatives, in order to achieve public safety voice and data communications interoperability.

HB 226

HB 226 was passed by the 2004 General Assembly and signed into law by Governor Ernie Fletcher. The Bill amended KRS 11.5162 to expand the definitions of "frequency," "interoperability," and "standards," and create definitions for "public safety shared infrastructure" and "primary wireless public safety voice or data communications systems," and excludes "911" telephone systems from the definition of "primary wireless public safety voice or data communications systems."

The entire text of KRS 11.5162 is available online at www.lrc.state.ky.us/KRS/011-00/5162.PDF

With the passage of HB 226, KRS 11.5163 was amended to include these requirements:

- The development and recommendation of required architecture and standards will ensure that new or upgraded Commonwealth public safety communications systems will interoperate.

- The Kentucky Wireless Interoperability Executive Committee shall be responsible for the evaluation and recommendation of all wireless communications architecture, standards, and strategies.

- All state agencies in the Commonwealth shall present all project plans for primary wireless public safety voice or data communications systems for review and recommendation by the committee, and the committee shall forward the plans to the chief information officer for final approval. Local government entities shall present project plans for primary wireless public safety voice or data communications systems for review and recommendation by the Kentucky Wireless Interoperability Executive Committee.

- The committee shall develop funding and support plans that provide for the maintenance of and technological upgrades to the public safety shared infrastructure, and shall make recommendations to the chief information officer, the Governor's Office for Policy and Management, and the General Assembly.

- The chief information officer shall examine the project plans for primary wireless public safety voice or data communications systems of state agencies and shall determine whether they meet the required architecture and standards for primary wireless public safety voice or data communications system.

The entire text of KRS 11.5163 is available online at www.lrc.state.ky.us/KRS/011-00/5163.PDF.

KWIEC Members

The Kentucky Wireless Interoperability Executive Committee (KWIEC) consists of state and local representatives who are senior decision makers in their agencies. These members play a key role in ensuring that every major agency has a voice in the KWIEC and ultimately in the direction of the interoperability initiatives and policies in the Commonwealth.

As previously mentioned, the gubernatorial change along with the large number of retirees in the 2008 calendar year greatly affected the board. This convergence of events resulted in nearly half of the seated members being replaced and left several seats unfilled and in transition for several months. This issue was resolved by late July with new appointments.

New Appointments

Governor Beshear appointed the following members to the Kentucky Wireless Interoperability Executive Committee to serve for terms expiring July 22, 2009.

- Rebecca A. Hopkins, of Covington, is the director of Information Systems, Telecommunications & Special Projects for the city of Erlanger. She represents the Kentucky League of Cities. The appointment replaces Constance Lawrence, whose term has expired.

- John A. Conley, of West Liberty, is the E-911 director for the West Liberty Police Department. He represents the Kentucky Chapter of National Emergency Number Association. The appointment replaces James B. Morse, whose term has expired.

- Thomas Wayne Wright, of Versailles, is the sheriff of Woodford County. He represents the Kentucky Sheriff's Association. The appointment replaces Boston B. Hensley, whose term has expired.

- Steve L. Cornish, of Lawrenceburg, is the county judge/executive for the Anderson Co. Fiscal Court. He represents the Kentucky Association of Counties. The appointment replaces Walker Dean Peak, whose term has expired.

- Pamela A. Collins, of Lexington, is the executive director of the Justice & Safety Center and a professor at Eastern Kentucky University. She represents the Council on Postsecondary Education. The appointment replaces L. Michael Rosenstein, whose term has expired.

Reappointments

The governor has also reappointed the following members to the committee to serve for terms expiring July 22, 2009.

- Terrence L. Lewis, of Henderson, is the fire chief of the city of Henderson. He represents the Association of Fire Chiefs.

- Charles M. O'Neal, of Lawrenceburg, is the executive director for the Kentucky Board of EMS. He represents the Kentucky Board of Emergency Medical Services.

- John Michael Ward, of Alexandria, is the chief of police for the city of Alexandria. He represents the Kentucky Association of Chiefs of Police.

Listing of Members

The chart below lists the voting members on the committee and the agency they have been appointed to represent.

Name	Representing	Position
Jim Barnhart	Commonwealth Office of Technology	Chair
Steve Rucker	Office for Infrastructure Services	Member
Ken Mitchell	Office of the 911 Coordinator	Member
Bob Ball	Kentucky Educational Television	Member
Dan Mauer	Transportation Cabinet	Member
Don Pendleton	Justice Cabinet	Member
Col. Brad Bates	Kentucky State Police	Member
Col. Robert Milligan	Department of Fish and Wildlife Resources	Member
Ken Jorette	Natural Resources and Environmental Protection	Member
Col. Rodney Hayes	Division of Emergency Management	Member
Mary Pedersen	Kentucky Office of Homeland Security	Member
Rodney Murphy	Cabinet for Health Services	Member
Pamela Collins	Council on Postsecondary Education	Member
Lonnie Lawson	The Center for Rural Development	Member
Rebecca A. Hopkins	Kentucky League of Cities	Member
Steve L. Cornish	Kentucky Association of Counties	Member
Michael Ward	Kentucky Association of Chiefs of Police	Member
Terry Lewis	Association of Fire Chiefs	Member
Wayne Wright	Kentucky Sheriff's Association	Member
Charles M. O'Neal	Kentucky Board of Emergency Medical Services	Member
John A. Conley	Kentucky National Emergency Number Association	Member

Support Groups of the KWIEC

Architecture and Standards Working Group

The Architecture and Standards working group (ASWG) continues to act as the technical advisory group to the KWIEC. Its primary function of reviewing each Project Plan, assessing its compliance with standards, coordinating with and making recommendations to the submitting agencies, and finally advising the KWIEC allow for a smooth and generally rapid process flow.

Its membership remains basically unchanged since last year with subject matter experts from a variety of agencies including Justice, The Center for Rural Development, Military Affairs, Emergency Management, Metro Louisville, and the Commonwealth Office of Technology.
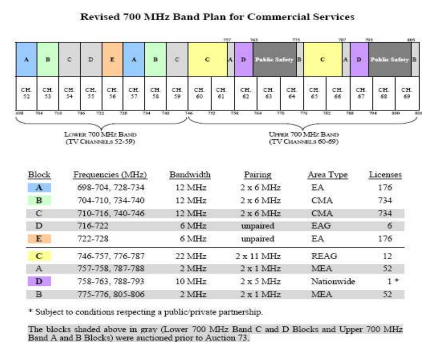
This group also reviews new technologies as needed and provides their recommendation to the KWIEC. This group provides quarterly briefings to the KWIEC members on project assessment status.

Public Safety Working Group

The Public Safety Working Group (PSWG) is a group of wireless communications subject matter experts charged with writing the FCC Region 17 700MHz Plan and for overseeing the 800MHz re-banding for the Commonwealth. This group concentrated on plan development and frequency coordination with surrounding states.

This group has been actively involved with the Federal Communications Commission and has made several visits to coordinate efforts and provide detailed information on the requirements of the Commonwealth.

This group provides periodic briefings to the KWIEC members as key events occur.

Revised 700 MHz Band Plan for Commercial Services

Block	Frequencies (MHz)	Bandwidth	Pairing	Area Type	Licenses
A	698-704, 728-734	12 MHz	2 x 6 MHz	EA	176
B	704-710, 734-740	12 MHz	2 x 6 MHz	CMA	734
C	710-716, 740-746	12 MHz	2 x 6 MHz	CMA	734
D	716-722	6 MHz	unpaired	EAG	6
E	722-728	6 MHz	unpaired	EA	176
C	746-757, 776-787	22 MHz	2 x 11 MHz	REAG	12
A	757-758, 787-788	2 MHz	2 x 1 MHz	MEA	52
D	758-763, 788-793	10 MHz	2 x 5 MHz	Nationwide	1 *
B	775-776, 805-806	2 MHz	2 x 1 MHz	MEA	52

* Subject to conditions respecting a public/private partnership.

The blocks shaded above in gray (Lower 700 MHz Band C and D Blocks and Upper 700 MHz Band A and B Blocks) were auctioned prior to Auction 73.

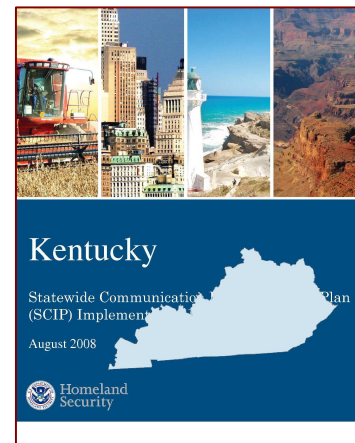# KWIEC Mandates and Goals

KWIEC Mandates

Statewide Communications Interoperability Plan

> ❖ *KRS 11.5163 (1) - The executive director shall establish and implement a statewide public safety interoperability plan. This plan shall include the development of required architecture and standards that will ensure that the new or upgraded Commonwealth public safety communications systems will interoperate. The Kentucky Wireless Interoperability Executive Committee shall be responsible for the evaluation of all wireless communications architecture, standards, and strategies. The executive director shall provide direction, stewardship, leadership, and general oversight of information technology and information resources. The executive director shall report by September 15th annually to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability.*

The Commonwealth completed and published its Statewide Communications Interoperability Plan (SCIP) which can be found on the KWIEC website at www.kwiec.ky.gov. This plan established near term and long term initiatives and will be used as a template for communications planning through June 2011.

As with all technology based efforts, the Commonwealth is aware of and incorporated the inevitability of changes into this plan. It is a living document which acts as a plan but is fully expected to be updated and changed as needed. Updates will be made to incorporate newer technology, the ongoing progress of various pilots, and lessons learned from regional and state exercises in the coming years.

The KWIEC will consider this document in its decisions on future projects and initiatives and all agencies across the state are expected to comply with and follow its direction.

Project Plans

❖ *KRS 11.5163 (2) – The Kentucky Wireless Interoperability Executive Committee shall serve as the advisory body for all wireless communications strategies presented by agencies of the Commonwealth and local governments. All state agencies in the Commonwealth shall present all project plans for primary wireless public safety voice or data communications systems for review and recommendation by the committee and the committee shall forward the plans to the chief information officer for final approval. Local government entities shall present project plans for primary wireless public safety voice or data communications systems for review and recommendation by the Kentucky Wireless Interoperability Executive Committee.*

Over the last two years, the process has been streamlined slightly and is done entirely via email and document scans. This eliminates the delays and potential loss associated with mail and other manual efforts. The entire process from submission to anticipated approval takes approximately 30 days, but this estimate is highly dependent on the complexity of the plan and how well the plan was researched and written by the submitting agency. Process refinements will continue to be investigated in an effort to streamline the project plan assessment process further.

As required by this KWIEC mandate, the KWIEC reviewed and evaluated an average of three wireless project plans per month during this last 12 month reporting period. The Architecture and Standards Working Group continued its assignment and pre-screened each assessment for the KWIEC and worked directly with the local agencies to resolve technical issues before being presented to the KWIEC.

During this reporting period –

- 45 Project Plans were submitted for evaluation

- 38 Project Plans were approved

- 3 Project Plans were withdrawn by submitting agencies

- 4 Project Plans are being evaluated by the Architecture and Standards Working Group

Funding

The Chairperson of the KWIEC and other members met with budget committees and key members of the legislature in support of this mandate.

KEWS Funding

The Kentucky Emergency Warning System (KEWS) Digital Upgrade Project was estimated to cost $45 Million, and prior to 2008 was funded at approximately 60%.

Other methods of funding this project including selected State and Federal grants were applied for, but were unsuccessful. In 2008, the Kentucky Legislature approved an additional $18 Million to complete this project, and as of July 1, 2008, the KEWS Digital Upgrade project is fully funded.

Other Infrastructure

The Commonwealth participated in the Public Safety Interoperability Communications (PSIC) Grant program and continues to wait on the release of funds from the federal government. This one-time $1 Billion PSIC federal grant program will be shared nationwide, and the grants that are awarded will vary by state based on several variables.
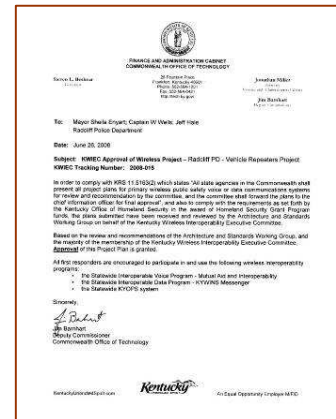
Kentucky expects to be awarded approximately $15.5 Million from this PSIC grant, and once received, the money will be used to support statewide communications interoperability efforts as outlined in the State Communications Interoperability Plan.

Project Review

❖ *KRS 11.5163 (4) - The executive director shall examine the project plans for primary wireless public safety voice or data communications systems of state agencies as required by subsection (2) of this section, and shall determine whether they meet the required architecture and standards for primary wireless public safety voice or data communications system.*

This requirement was met. Once the Architecture and Standards Working Group and members of the Kentucky Wireless Interoperability Executive Committee have made their recommendations, the project plan is reviewed, and when satisfied the project meets all requirements, a letter of authorization is returned to the submitting agency.

This process has been integrated into the Project review process and is seamless to the submitting agencies.

KWIEC GOALS

The 2007 report identified three major goals of the KWIEC for 2008. As previously reported the successful transition of two major interoperability projects[‡] into operational programs allowed the KWIEC to rearticulate their goal for 2008 to these three:

1. Design of a statewide voice interoperability system for public safety.

2. Install all of the new digital microwave systems in the eastern segment of the Kentucky Emergency Warning System (KEWS).

3. Establish a public awareness and outreach program for Public Safety and Communications Interoperability.

As they had done in 2007, the KWIEC again reviewed their goals in mid 2008 and elected to modify them slightly and adopt a fourth goal. The first two goals are considered long-term (multi-year or on-going) efforts and the other two goals are near-term which when complete will be revised as needed.

1. Continue efforts to improve statewide interoperability programs for public safety

2. Increase stakeholder awareness and utilize outreach programs to promote public safety and the communications interoperability effort

3. Complete the upgrade of the KEWS Eastern Segment

4. Publish and begin implementation of the long term Strategic plan for communications interoperability for the Commonwealth

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[‡] Voice Mutual Aid & Interoperability and KYWINS Messenger

Goal 1 - Continue efforts to improve statewide interoperability programs for public safety

This report also describes the progress and accomplishments in furthering public safety communications interoperability in the following key programs:

Statewide wireless data interoperability - Mobile Data Program

The program continues to serve the first responders across the Commonwealth and like the Mutual Aid program, continues to evolve. In this last year, a review of the radio coverage and the actual versus anticipated usage were conducted. The results of this analysis enabled the Commonwealth to uncover sites that were not being used. Thanks to this study, nearly a dozen sites were relocated from minimal or no use areas to high use areas.
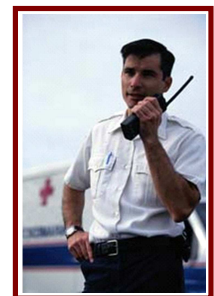
This infrastructure still consists of over 160 transmitter locations, but due to the relocation of several of these sites, the capabilities of the system were actually increased without requiring the purchase of any additional radio equipment.

This Mobile Data network continues to provide secure data to mobile users at a shared bandwidth of 19.2Kbps, but as indicated in last year's report, other broadband systems such as Wi-MAX are being evaluated for use in high density/usage areas.

Statewide wireless voice interoperability - Mutual Aid and Interoperability Program

This flagship voice interoperability program continues to be expanded and improved. Several repeaters have been added to the network to fill in coverage gaps and the frequency changes required in the 800MHz band were made to comply with the FCC's mandatory re-banding.

Over 700 agencies have signed up for this program to date and its growth, while tapering, is expected to continue. Participation in this program remains mandatory for anyone wishing to apply for grants through the Kentucky Office of Homeland Security as well.
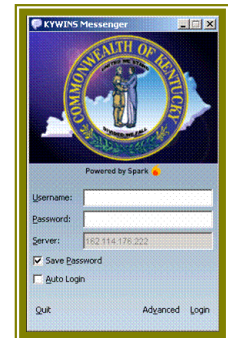
This voice system is and will remain an essential part of the Commonwealth's interoperability vision, and its continual development and upgrades are called for in the State Communications Interoperability Plan (SCIP).

This program continues to be available at no cost and as indicated previously, is 100% compatible with all radios across the state. This system continues to be used in real life situations, and several exercises conducted by KSP, KyEM, and various regional agencies will continue to test the capabilities and identify any shortfalls of this network.

Statewide Instant Messaging - KYWINS Messenger Program

The KYWINS Instant Messenger program continues to serve first responders across the state. Its growth, like the other programs has tapered since most of the agencies desiring this program took advantage of it in the first year of its existence.

It remains the premiere IM method of communications between first responders across the state allowing near real time, encrypted, text based communications across the state. It continues to excel at its primary purpose of providing service to first responders in non-critical instances where secure near-real time text communications with one another is desired.

Goal 2 - Increase stakeholder awareness and utilize outreach programs to promote public safety and the communications interoperability effort

This goal was met by using various methods. The Quarterly KWIEC meetings, advocating associations between agencies, maintaining a central website for all KWIEC interoperability issues, and providing informational briefings, both in person and on the website, will continue to promote this goal.

Associations Established to Promote Communication Interoperability

The associations established through the KWIEC continue to serve the Commonwealth well. These associations have enabled some agencies to work together to pool their efforts in such areas as:

- ❖ Exercise planning and conduct
- ❖ Joint training
- ❖ Coordination of plans and policies
- ❖ Maintenance/resource sharing/assistance
- ❖ Collaboration on projects and planning
- ❖ Generally increased interactions

Kentucky Wireless Interoperability Executive Committee Website

The KWIEC website (www.kwiec.ky.gov) continues to be the primary venue for disseminating information on KWIEC issues and interoperability programs.

This website will continue to provide information to the public and first responders on Kentucky's wireless interoperability initiatives. It provides a single source for information on the major interoperability programs in the Commonwealth, and provides local agencies with the information necessary to successfully submit wireless project plans for evaluation.

It will continue to promote the development of wireless standards and methodologies, list approved standards and methodologies, and provide resources that include KWIEC meeting minutes, special event announcements, conference information, research documents, and web links.

KWIEC Informational Briefings

The information briefings which started last year, will continue to keep the KWIEC members well informed of the various interoperability programs, initiatives, and projects being considered or in effect within major agencies.

During the last year, KWIEC informational briefings were provided by these agencies:
- Kentucky Office Homeland Security
- Kentucky State Police
- Military Affairs
- Forestry Service
- Mines and Minerals
- Transportation Cabinet
- Kentucky Emergency Management
- Commonwealth Office of Technology
- Public Health
- Kentucky Emergency Warning System Agency

This policy continues to receive good comments and will be continued.

Goal 3 - Complete the upgrade of the KEWS Eastern Segment

Background Summary

The Kentucky Emergency Warning System (KEWS) is a thirty year old statewide microwave communications network which supports the communications requirements of local, state, and federal first responder agencies. Its primary purpose is to support communications for these agencies in times of emergencies and additionally provides connectivity and support for their day-to-day operations.

After nearly thirty years, the system is well past the end of its expected life and clearly in need of replacement. To that end, the Commonwealth commissioned Harris Stratex microwave to upgrade the KEWS network to a new state-of-the-art digital system. The new system will provide a huge increase in traffic-carrying capability and will be exceptionally reliable.

This ongoing infrastructure upgrade project was initiated in late 2006 as a multi-year effort with an estimated price tag of $45 Million. As of July 1, 2008 it has been fully funded.

The scope of effort to upgrade this statewide network is daunting. Replacement of all old radio systems with new digital radio systems is but one small aspect of the upgrade. Additional aspects of this project include installation of new towers, upgraded power generators and battery systems, upgrading electrical grounding, replacing shelters, reinforcing all towers to withstand additional ice and wind loads, and extending towers as needed. When completed, the new system will be highly survivable and offer additional benefits to every supported agency that uses the system.

The upgraded system will be an all-digital, IP-based microwave network capable of directly supporting current and emerging technologies such as video and voice over IP, among others. It provides a network that is far superior to the existing system in every conceivable way and, when fully implemented, will provide a self-healing, robust backbone that will support public safety agencies throughout the Commonwealth for decades to come.

Since this public safety system consists of over 140 communication sites serving all 120 counties in the Commonwealth, the project was split into two phases with separate objectives. This was done primarily to ease the financing and management burden of such a large project.

The project phases are: Phase 1 - Discovery, and Phase 2 – Implementation. Phase 2 was further divided into East and West. The portion being worked on now is the East.

Project & Goal Status

The KWIEC members adopted this goal since, as the largest interoperability project in the Commonwealth, nearly every current and future interoperability project will be affected by it.

Unfortunately this goal was not met since the project was delayed due to radio firmware issues recently discovered and reported. These firmware issues only exist in the 6000 series radios used for the high power/long path communications links and should not affect the deployment of any other portion of the project. The CEO of Harris Stratex personally met with the Deputy Commissioner of COT to assure the Commonwealth that all off these problems can and will be resolved, but regrettably informed us that the goal of completing the Eastern portion of the KEWS digital upgrade by December 2008 is simply not attainable now.

The delay, while frustrating, should not be a concern since installation of these radio systems will continue. This decision will allow all the remaining work to be completed and will ensure that these radios are in place and ready for traffic once the new code is released in December 2008.

The delay in the radios has not affected the civil (Outside Plant) work, and it has been nearly completed in the East with almost half the sites inspected and accepted. Once minor clean-up issues are resolved the civil work in the east should be complete.
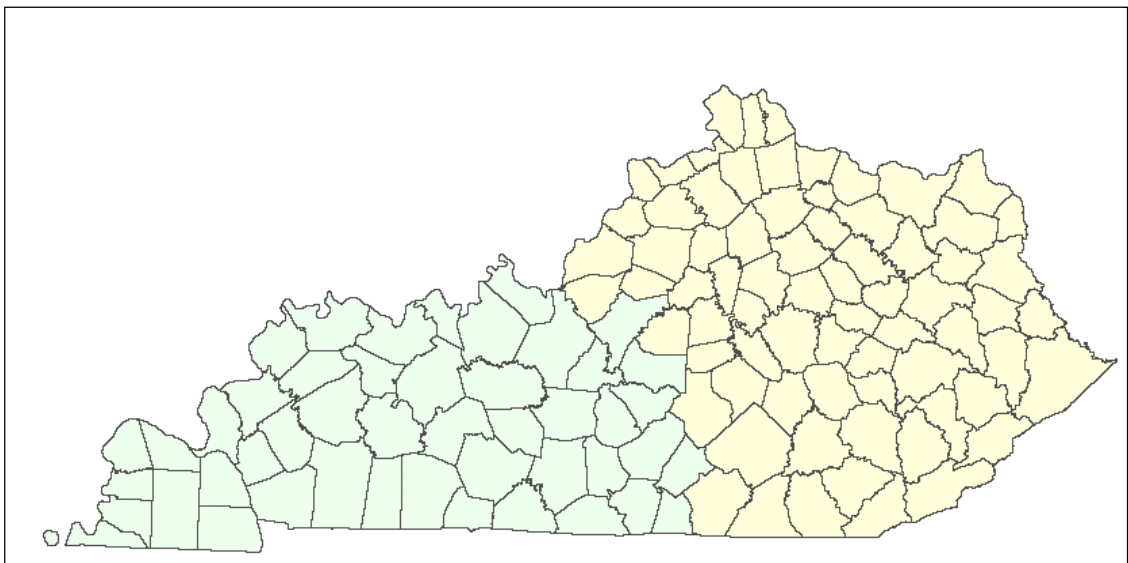
The civil work in the East has been completed. It varied by site but consisted of improvements in the following areas:

- ➢ Installation of new shelters
- ➢ Grounding upgrades
- ➢ Improvement to electrical service
- ➢ Installation of generators, fuel tanks, and auto-start systems
- ➢ Tower reinforcements
- ➢ Road Repairs
- ➢ Guy path clearing
- ➢ New fencing

In addition to this, most of the technical (Inside Plant) work in the East is nearing completion and is expected to be done by December 2008. Again, this work varied by site, but consisted of installations of the following new equipment:

- Racks
- Radios
- Waveguides and antennas
- Routers and Switches
- VoIP multiplexers
- Inside wiring
- Batteries and UPS systems
- Monitoring Systems
- Improved cooling systems

Currently two Mobile Data circuits are being tested on two 5000 series radio links. This testing will provide KEWS engineers with the baseline measurements and metrics to facilitate the large scale circuit cutovers planned for mid 2009. So far these circuits in the Mobile Data Network are operating without incident, and moreover the two data circuits are now providing superior service availability to what was being provided on the older analog systems.

The West

In the Phase I portion of this project most of the survey and planning work for the West was completed. This will greatly simplify engineering efforts in the West since return site visits should not be required on most of these sites. In addition to this, the Eastern portion of the project comprised the brunt of the work in the state. The 88 Eastern sites typically have substandard access roads, mountainous and difficult terrain, and are

located hundreds of yards to miles off the main access road. The 45 Western sites are typically easy to access, and are located on small hills just a few hundred feet off a main road. For these reasons, we expect the western portion of this project to take only 18 months from the start.

Harris Stratex is currently compiling the final pricing for the West which should be provided for approval by September 15, 2008. If the West is started by Q4 of 2008, we are anticipating completion of the West and wrapping the project by the middle of 2010.

Tangible benefits now

During the recent ice storm in early 2008, many of the KEWS Sites were impassable for several days afterward. During this time power was lost and site roads were impassable. There was simply no easy way for a technician to access any of these remote facilities.

Typical events which occur after a storm which downs trees, causes power failures, and puts an inch of ice on roads, will end in equipment failure. Surprising enough, this did not occur with any of these sites which were upgraded. The emergency batteries, UPS and generator operated flawlessly and provided uninterrupted power and uncompromised communications for a period of more than 48 hours until power was finally restored.

Tangible benefits that were immediately evident as a result of this upgrade were:

➢ No call out was required and no KEWS technician needed to risk life or limb to get to these site during the storm

➢ The emergency generator system worked flawlessly and kept these sites fully operational for two days without commercial power

➢ Absolutely <u>NO</u> communications outage occurred!

To put the terrain problems into perspective, it should be noted that three technicians worked for 16 hours using chainsaws to get to the site after the weather cleared.

Goal 4 - Publish and begin implementation of the long term Strategic plan for communications interoperability for the Commonwealth

This goal closely ties in with the 11.5163 (1) mandate, but the goal is to 'Begin Implementation" of the published plan.

The Statewide Communications Interoperability Plan (SCIP) will be presented to the KWIEC at the upcoming Quarterly meeting, and discussions will be conducted to determine how to begin implementing it.
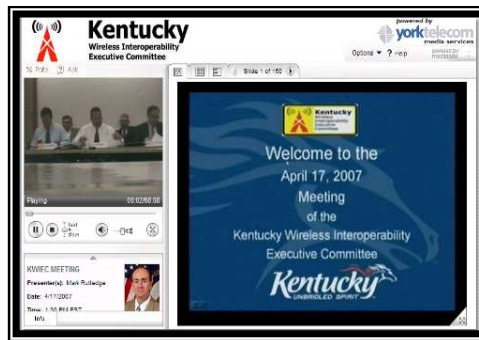
This goal is a high priority for the KWIEC and as such will be met by the end of 2008.

Discontinued Efforts

Kentucky Wireless Interoperability Executive Committee Webcast

Every KWIEC meeting is open to the public and announced well in advance, but travel and other issues have sometimes precluded interested parties from attending. To resolve this problem, the State CIO ordered that all meetings be webcast and made available for viewing by the citizens of the Commonwealth.

Unfortunately this program was simply not taken advantage of by citizens or agencies in the state. For this reason, it was decided that the cost needed to continue this effort could be used better elsewhere, and as such the webcast has been discontinued. Briefings, minutes, and reference information is still placed on the KWIEC website, so no actual loss of content was experienced.

This effort will be revisited as needed.

Conclusion

The KWIEC will continue to meet its mandates and expects to carry these 2008 goals forward into 2009:

1. Continue efforts to improve statewide interoperability programs for public safety

2. Complete the upgrade of the KEWS Eastern Segment

3. Increase stakeholder awareness and utilize outreach programs to promote public safety and the communications interoperability effort

4. Publish and begin implementation of the long term Strategic plan for communications interoperability for the Commonwealth

Other goals for 2009 have not been voted on but an anticipated goal for the KWIEC is:

✍ Begin installation of the new digital microwave systems in the Western segment of the Kentucky Emergency Warning System (KEWS)

The KWIEC will continue to provide an ideal venue for disseminating information, providing guidance and direction, and coordinating the interoperability efforts of public safety and first responder agencies statewide.